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PERIODICALS

American Journal of Physical Anthropology

June 29th, 1940. Vol. 27, No. 1.—Dr. Hrdlička discusses cases of special extra growth of bone in the jaws, and finds that, where they are not instances of disease, they are caused by the stress of chewing in excess of the capacity of the individual bones; they thus afford extra strengthening.

J. B. Birdsell and W. C. Boyd give an account of *Blood Groups in Australian Aborigines*, with tables of the results of other workers. It has long been well known that the proportions of O and A are very high, and that B is almost absent. It is now shown that the frequency of N is very high (50 to 90 per cent.). It is probable that the Tasmanians did not differ materially in this respect from Australians.

J. J. McDonald and B. J. Anson and also Mildred Trotter discuss details of differences of blood-vessels in White and Negro peoples.

H. Field gives the results of his observation on the "Mongoloid Spot" in Turkey and Iraq, showing that it occurred in 8·8 per cent. of the children examined in various parts of Turkey according to a report dated June 1938. Another report in June 1939 showed that it occurred in 4·8 per cent. of the babies examined, and a third report on nearly 8,000 children gave 2·36 per cent. The spots were more frequent in boys than in girls.

C. C. Francis gives an account of the *Appearance* of *Centres of Ossification* between the ages of 6 and 15 years, and M. F. Ashley-Montagu discusses Medio-Palatine Bones.

J. M. Longyear describes a skeleton belonging to the Maya Old Empire. Unfortunately the skull was much damaged.

There is a summary of work and publications on anthropology in the U.S.S.R. in 1938 and 1939.

H. J. Fleure.

Annals of Eugenics

July 1940, Vol. 10, Part 2.—W. H. Dowdeswall, R. A. Fisher and E. B. Ford describe the technique and results of estimating the numerical density of isolated populations of the butterfly *Polyommatus icarus* on the Island of Tean (Isles of Scilly). The method consisted in marking, releasing and recapturing a number of specimens; the marking was done on the wings by means of a cellulose paint. No migration to or from the colony as a whole occurred. During the period of study from August 26th to September 8th, 1938, the population decreased from 350 individuals to nearly zero. About 450-500 imagines died in all, including about 100 that emerged during the period.

Joyce Pease has subjected to statistical analysis the data collected by R. R. Gates and his students on petal size inheritance in Oenothera. The distribution curves for all the families were positively skewed and in many cases there was an indication that the curves might be bimodal. Regrouping of the data in classes of successive standard deviations, the class intervals in the upper limit being half the standard deviation and in the lower limit a whole standard deviation, showed that the curves are definitely bimodal. The lower part of the curve contained many more individuals than did the upper part, indicating that factors for small flowers were dominant over that for larger flowers. Since the variance of the curves decreased fairly rapidly, it is probable that the number of factors for small flowers which are free to segregate is not very large.

R. A. Fisher discusses the estimation of gene ratios in a population when the available samples contain related groups of individuals, such as parent and offspring. He recommends the use of weights fixed for each combination of relationship, irrespective of the observable types of its members. The use of weights intrinsic to each set of related individuals observed is more logical, but involves more elaborate calculations and in practice it seems to differ very little from the former method.

D. J. Finney describes methods for making an efficient test for linkage between any two genetic loci, each having only two allelomorphs. A test of the data collected by Zieve *et al.* suggested autosomal linkage between allergy and the A B O blood groups; the total score found was significant at the 5 per cent level. A similar test of families from the same records showed no linkage between allergy and sex.

D. G. Catcheside.

Hereditas

March 1939, Vol. 25, Part 2.—Otto L. Mohr describes a case of dominant acrocephalosyndactyly in a Norwegian family. The father and five (three sons and two daughters) of the nine children are affected. The syndactyly affects the fourth and fifth fingers; the toes are unaffected. The acrocephaly is characteristic, though rather slight in degree. The intelligence of the affected members of the family is below that of the normal members. The case is remarkable for the uniform phenotypic manifestation of the gene concerned.

June 1939, Vol. 25, Part 3.—G. Gentcheff and Å. Gustafsson show that the polyploid tissues observed in the roots of *Spinacia oleracea* are due to double division of the chromosomes in the nuclear resting stage.

September 1939, Vol. 25, Part 4.—G. Gentcheff and Å. Gustafsson show by an X-ray method that the

two divisions of the chromosomes in *Spinacia oleracea* occur in the same nuclear cycle.

In the course of a paper on interchange in *Pisum* in relation to segregation and mutation, H. Lamprecht describes a case in which a spontaneous interchange in a pure line was associated with a mutation from v to V the locus of V being on one of the interchanged chromosomes. The author suggests that the mutation may have reduced the stability of the chromosome and so promoted an interchange, but it appears more likely that the case is one involving position effect.

Gert Bonnier and Maja Nordenskiöld have raised the percentage homozygosis of yellow in attached-X *Drosophila* by selection from 19 to 29 in 17 generations. Further inbreeding showed a decrease in viability without any more increase in homozygosis. The authors attribute the effect to a change in chromatid interference and the determination of the first chiasma.

January 1940, Vol. 26, Parts 1-2.—Esko Suomalainen has examined a number of parthenogenetic beetles belonging to the Curculionidæ. There were five triploid, three tetraploid and one diploid species amongst the nine studied. There is suppression of one of the two meiotic divisions in the egg cells. In the weevils it appears, therefore, that parthenogenesis has made it possible for polyploidy to play a part in speciation.

G. Gentcheff and Å. Gustafsson describe a method for growing plants from seed to seeding in nutrient agar solutions. They have had success with *Spinacia* and *Pisum* growing either in light or in the dark. A feature of the technique is the early maturity of the plants.

D. G. CATCHESIDE.

Human Fertility

June 1940, Vol. 5, No. 3.—The original papers in this number are concerned with the public health aspect of birth control. Dr. R. Norton gives a brief description of the development of a State birth control service in North Carolina through which indigent women who, for reasons of ill health, need to space out or prevent further pregnancies, can obtain medically guided contraceptive advice. The establishment of this service was materially helped in 1937 by a doctor interested in this aspect of public health work who provided a fund to pay the expenses of a trained nurse and for supplies for a year of demonstration work. This nurse was placed at the disposal of any local health officer who thought that a birth control clinic was needed in his area. At the end of a year 36, and at the end of 3 years, 60 local public health units had made contraceptive advice available. The method most frequently advised in these clinics was a sponge and foam powder and some 4,000 women have been so advised. No accurate follow-up figures are as yet available.

A very similar service has been set up in South Carolina and its development is described in a short paper by Dr. R. E. Seibels. In this State it was the Birth Control Federation of America that provided funds for a consultant nurse, and the sponge and foam powder was again the method of choice. Both writers stress the point that the co-operation and approval of the medical profession was sought and obtained from the very outset.

In another paper Nurse E. P. H. Talbot, superintendent of the Babies' Hospital of Philadelphia, describes how, among other material health services, contraceptive advice is now offered to every mother on leaving the hospital and, if she decides she wants this help, she is taught how to use a sponge and foam powder. A total of 91 women were advised in one year; of these, 65 have been followed up and, although 9 were found to have failed for one reason or another, the author concludes that the sponge-foam-powder method is reasonably acceptable to and successful for patients of low economic level and intelligence.

Dr. L. Dewees and G. W. Beebe submit figures from the former's private practice which throw some light on the influence of the practice of contraception on planned parenthood. In a series of 662 patients, 166 planned pregnancies were reported by 130 of the women. The incidence was higher for women who had received contraceptive advice premaritally than for those advised after marriage, and also increased with the length of the follow-up period. The planned fertility of these women was decidedly below that necessary to ensure a population replacement but this was also found to be characteristic of a control sample of similar socio-economic status not specially instructed in birth control.

In the series investigated by the authors about 50 per cent of the patients were alleged to have conceived one month after giving up contraception and a further 25 per cent within 3 months; which would seem to indicate that these women were in fact exceptionally fertile.

August 1940. Vol. 5, No. 4.—Royal L. Brown and Clarence J. Gamble describe a method of testing the relative spermicidal effectiveness of chemical contraceptives. Early in their investigations they confirmed J. R. Baker's finding, that the resistance of sperms to spermicides varies with the donor. They also found that this resistance varies with different ejaculates from the same donor and with the age of the specimen. They contend, therefore, that no absolute spermicidal time can be determined and that comparisons between contraceptives should be made with spermatozoa from a single ejaculate and as nearly as possible at the same time. They devised a micro-method using capillary tubing for measurement whereby they could carry out a test with as little as 0·04 c.c. of semen. This meant that they could examine as many as ten commercial products

with one and the same specimen. In their test the chemicals to be examined are thoroughly mixed with diluent in various ratios (using the same dilution in any one series of tests). The mixtures are left for several hours at 37 degrees C.; equal quantities of the diluted spermicides and of the semen are mixed together on slides and the exact moment when all sperms are immobilized is noted by repeated observations. The results of this test provide a means of comparing the relative efficiency of a limited number of spermicidal products. It is to be regretted that these workers did not use Baker's standard diffusion test, or some modification of this, which in many ways would appear to be of more practical value. Moreover, it would then have been possible to compare the efficiency of American products with those already tested by Baker in this country. As it is no such comparison is possible. Several important points are brought out by the authors of this paper—the desirability of using the same specimen of semen when attempting to compare the efficiency of different products and the importance of using a specimen within a few hours of ejaculation. They also found that the type of diluent and the degree of dilution (within certain limits) produced no significant changes in the order of spermicidal times.

Harry S. Fist describes an ingenious and simple mechanical introducer for vaginal diaphragms.

MARGARET C. N. JACKSON.

Journal of Heredity

December 1938, Vol. 29, No. 12.—*A pedigree of syndactylism.*—By S. d'A. Bailey.—An extensive pedigree showing dominant transmission. There are one or two anomalies in the earlier generations; these are perhaps due to faulty information. *A new ear defect in pigs.*—By H. E. Annett.—A lethal factor, one of whose constant manifestations is split ears. There are other defects such as cleft palate, and sometimes, not always, the hind limbs are grossly deformed. The evidence points to a recessive factor.

February 1939, Vol. 30, No. 2.—*Inheritance of absence of thumb nails.*—By H. H. Strandskov.—The thumb-nails are either completely or almost completely absent. The other nails show lesser abnormalities and the phalanges and metacarpals tend to be short. The pedigree indicates dominant transmission. *Variations in the number of vertebræ of swine.*—By V. A. Freeman.—The number of thoracic and lumbar vertebræ varies from 19 to 23. There are characteristic differences between five breeds, but there is variation within each breed also. More than one gene pair is concerned. Selection for length of body is believed to have favoured an increased number of vertebræ.

March 1939, Vol. 30, No. 3.—*A pedigree of skin-spotting in man.*—By H. Sundför.—The most striking feature in this family group is a white forelock, but there are also unpigmented spots on the body and limbs. The extensive pedigree includes forty-two affected individuals. Transmission is that of a simple dominant gene. *Fertility in cross-bred mice.*—By H. Grüneberg.—A group bred from fanciers' stock showed very high fertility, the average litter size being 11·4. One mouse had the remarkable number of 19. *The Inheritance of brachymetapody.*—By K. A. Stiles.—This rare defect is due to shortness of metacarpals or metatarsals, giving short fingers or toes. It is very variable in its expression and may occur, for example, in one hand only. Inheritance is that of an irregular dominant, i.e. some heterozygous individuals do not display any abnormality. *Agnathia, a new bovine lethal.*—By F. Ely, F. E. Hull and H. B. Morrison.—Four cases appeared in a Jersey herd. The abnormality is probably due to a recessive gene. All four were males, but with such small numbers it is unnecessary to assume, as do the authors, limitation to the male sex. *The Swedish approach to population policies.*—By A. Myrdal.—The net reproductivity of the Swedish population fell below the replacement level in 1925. The problem of finding population policies has been studied by various Royal Commissions and particularly by a Commission called together in 1935. The first reforms were enacted in that year, and most of the new provisions came into force in 1938. Numerous other proposals await enactment. The principles underlying the policies are, first, that only children wanted by the parent are wanted by the nation. Secondly, attention is paid to quality as well as quantity. In consequence, it is said, practical aid should be paid in services to the children rather than in money to the parents. In the third place the means for carrying out reforms must include educational influences and social reforms. Compulsory sterilization covers a small section at the lower end of the population. It is proposed to widen considerably the scope of this measure by introducing voluntary sterilization also. A border-line group is to be discouraged from undue reproduction by direct propaganda and instruction in contraceptive measures. In the case of the great bulk of the population hopes are pinned to such measures as increased prenatal care, state maternity bonuses, an advanced nutritional policy, reforms in the educational system, and—a very important aspect—an enlightened housing programme. *Some implications of current demographic trends.*—By F. W. Notestein. A useful summary of the population problems of the United States.

April 1939, Vol. 30, No. 4.—*Degeneration of the retina and cataract.*—By M. C. Bourne and H. Grüneberg.—This new recessive gene in the rat causes degeneration of the retina, commencing at about three weeks. The changes are very similar to those of *retinitis pigmentosa* in man. Later some, but not all, of the affected animals develop

cataract, this being secondary in some way to the retinal degeneration. This gene, therefore, provides a good example of a regularly transmitted primary effect, together with an irregularity of manifestation if attention is concentrated on a secondary effect. *The inheritance of hollow chest.*—By S. E. Stoddard.—This symptomless abnormality is transmitted as a dominant in a large family group. An odd feature of the pedigree, however, is that several apparently unrelated members of the first generation were affected; the author thinks that the anomaly may not be very rare. *The needs of superior individuals as guides to group ascendance.*—By W. F. Dove.—Applied especially to nutrition, the author's theories depend on the proposition that much of the excellence of superior individuals depends upon their capacity for choosing a good diet. The best individuals can be used as indicators for an optimum diet, with resulting improvement in the whole group. Striking experimental results are quoted.

May 1939, Vol. 30, No. 5.—*Congenital malformation of hands and feet in man.*—By R. M. Hedgekatti.—This dominant gene apparently arose by mutation in an Indian family group, since when it has been regularly transmitted through five generations. *Familial incidence of stammering.*—By J. M. Wepman.—A sample of 250 was compared with an equal number of controls. The incidence of similarly affected persons in the families of the stammerers was much greater than in the controls. Males were affected four times more frequently than females. *Inheritance of short finger tendons.*—By W. Allan.—Four pedigrees are given. In three cases flexor tendons are affected; in one extensor tendons. Three pedigrees are consistent with dominant inheritance; one shows irregular dominance.

June 1939, Vol. 30, No. 6.—*The Norwegium platinum fox.*—By O. L. Mohr and P. Tuff.—This dominant mutation occurred in Norway in 1933; it is of considerable commercial value. *Normal variations in the ossification of bones.*—By J. W. Pryor.—The order in which the carpal bones ossify is determined by genetic factors. Sometimes an extra epiphysis is present at the proximal end of the second metacarpal; this feature displays recessive inheritance. *Hermaphrodism in milk goats.*—By O. N. Eaton and V. L. Simmons.—Pseudo-intersexes are common amongst goats. In the two herds described the percentages were no less than six and eleven. It is tentatively concluded that the abnormality is due to a recessive gene.

July 1939, Vol. 30, No. 7.—*The inheritance of strong parental instinct.*—By F. A. Woods (*continued from June issue*).—This study is based on the records of royal families of the Almanach de Gotha. An analysis is made of descendants in the male line of a number of founders of ruling houses. The average fecundity is very high. It is impressive that the highest fecundity is found amongst persons appearing in the first division of the Almanach, i.e. the highest grade of royalty, less amongst those of the second and still less amongst those of the third. The Catholic families are not more fertile than the Protestant. It is shown that the desire to provide safely for male succession is not an appreciable factor in the production of large families; that is, there is no tendency for these families to be larger when the early children are daughters. Amongst the smaller families, however, those of four or less, there is a definite preponderance of males, indicating limitation of size when the succession has been secured. It is concluded that the main reason for the large families is that the persons concerned liked children and that parental instinct is largely determined by heredity. Large families, indicating a strong parental instinct, are characteristic of those of a practical type of mind, in notable contrast to the low fertility of artistic, literary and scientific persons. Further data are promised on this point. The effects of the tendency of like to marry like are stressed. This interesting study accords well with other studies which will be familiar to readers of the REVIEW, e.g. those of Wagner-Manslau.

August 1939, Vol. 30, No. 8.—*Three generations of ear pits.*—By D. D. Whitney.—The pit is due to a failure of two tubercles to fuse completely, and is situated at the proximal end of the upper part of the helix. One or both ears may be affected. The pedigree reveals dominant inheritance, but in one case there has been a skipping of several generations. *A new inherited skin defect in man.*—By M. H. Lehr.—The name *keratosis follicularis* is given to a group of conditions in which there is overgrowth of the horny layer of the skin affecting especially the hair follicles. In the present condition, called keratosis follicularis spiralis, the hairs go on growing spirally within the hardened follicles. The areas affected are the extensor surfaces of the arms and legs. Two very curious pedigrees are given. There is direct transmission through as many as five generations; there is a great preponderance of affected females; in one family group this extremely rare gene has been received from three apparently unrelated sources, and in the other group from four; there are three marriages between affected persons, none being shown as blood relatives. *Differences in incidence of encephalomyelitis in horses.*—By W. V. Lambert, S. R. Speelman and E. B. Osborn.—During an outbreak of the disease in an experimental stud 18 out of 31 horses of the Nonius strain, or of crosses with it, were affected, against only 12 out of 190 of other breeds. After correction for age differences there is still a large and highly significant discrepancy. It is concluded that the difference is genetic.

September 1939, Vol. 30, No. 9.—*Genetics of quintuplets. II. Trends of growth in the Dionne quintuplets.*—By J. W. MacArthur and A. R. Dafoe.—At birth the quins were not only two months premature, but differed considerably in weight, the average inter-pair difference being 20 per cent. By the fifth birthday the difference is less than 4 per cent. Similarly, in the case of height the mean inter-pair difference has fallen from 4·5 per cent at 7 months to 1·1 per cent. The differences in weight are now less than the average amongst identical pairs and the differences in height practically equal to that average. In weight the quins have now passed the average for their age and are rapidly approaching average height. Marie, always the smallest, is now only two pounds and three-quarters of an inch below the averages for the five. It is clear, therefore, that the quins are growing more alike. *Heredity in infectious disease.*—By L. T. Webster.—Experiments extending over many years have established genetic differences in susceptibility of mice to mouse typhoid and to a particular encephalitis virus. The difference between the most and least resistant strains as regards typhoid is 10 per cent and 95 per cent mortality respectively in response to a standard dose. The difference behaves as if it depended upon a single gene pair, high resistance being dominant. When the encephalitis virus is dropped into the noses of susceptible mice it multiplies rapidly, there are lesions on the third day and the animal dies by the ninth day. In resistant mice the virus does not multiply greatly; lesions do not appear before the tenth day and are of a focal nature; the mice remain well. Studies on genetic factors in epidemics are being made in the case of mouse typhoid and have led to a theory of epidemics. An epidemic is caused by the introduction of a virulent but stable infecting agent. If the agent is already present the epidemic is caused either through the addition of susceptible immigrants or by some adverse environmental factor, e.g. inadequate diet. The multiplication of the infective agent increases the dosage and the epidemic curve depends upon differences in the original resistance of individuals and the average resistance level of the population. *Familial resemblances in composites of desirable traits.*—By E. L. Thorndike.—It is suggested that the correlations would be raised as the aggregates of separate measurements become larger. Examples are given and further research is urged. The eugenic implications are obvious. *Do the modes of transmission of tumours vary?*—By M. T. Macklin.—The answer is in the affirmative in regard to xeroderma pigmentosum and retinoblastoma. The first is due to a partially sex-linked recessive gene; the second in all probability to a dominant gene of infrequent expression. *Population policy for the United States.*—By P. K. Whelpton.—The author considers the country is overpopulated at present, and that a stabilized figure of 100,000,000 would be much preferable to one of 150,000,000. He also considers that the disadvantages of a declining and an older population are not very great. He does think, however, that too rapid a change is undesirable. In view of the importance of the qualitative aspect as well as of preventing too rapid a decline he favours widespread facilities for education in contraceptive measures, together with reforms designed to make it easier for parents to produce and bring up children.

October 1939, Vol. 30, No. 10.—*Hereditary umbilical hernia in dogs.*—By J. M. Philips and T. M. Felton.—The hernia appears within the first five weeks after birth and appears to be due to a failure of the normal occlusion of the umbilical ring. Extensive records in a Cocker Spaniel kennel indicate recessive inheritance. There is no relationship to colour or sex.

J. A. FRASER ROBERTS.

Mental Health

July 1940, Vol. 1, No. 3.—*Intelligence and Fertility*—By J. A. Fraser Roberts.—In October 1938 Dr. Fraser Roberts read a paper on "Intelligence and Family Size," at a Members' Meeting of the *Eugenics Society*.* This was widely reported in the daily press, and although the accounts were substantially accurate correspondence and comment soon showed that there was a complete misunderstanding among the general public of the suggestion in the report of the Burden Mental Research Trust that "Bright children were often only children; dull children came from large families." The reference was, of course, to differential fertility and eugenists are well aware that high intelligence is often coincident with low fertility, while the mentally dull tend to reproduce freely. But the children are not, of course, bright or dull *because* of the size of the family to which they belong. The present marked differences in fertility date from the time when the decline in the birth-rate set in at the end of the last century; it is quite possible that fertility may become equalized in the different intelligence groups, in fact, there is evidence to show that the decrease in general intelligence is slower than it was thirty years ago, but if it should continue to decline at the present rate for the next hundred years the results would be very serious. Further research into the underlying causes of unequal fertility is of the utmost importance, for when these are revealed social and economic measures may be used to combat them.

K. H.

The Milbank Memorial Fund Quarterly.

July 1940, Vol. 18, No. 3.—This number is largely devoted to population problems and the series is

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introduced by Warren S. Thompson with *Outstanding Population Trends Affecting Problems of Social Welfare*. While acknowledging the effect of immigration on population growth in the U.S.A., he points out that from 1910 to 1930 it contributed less than one-fifth of this growth. He predicts that the population will not reach more than 152 or 153 million before it starts to decline, that social welfare and the general standard of living will be improved and that the population will be large enough to defend itself in this troubled world. The more important question is thus the general effect of the age changes of the population, though the proportion of people in the more productive years will not alter very much for several decades. While the parental burden may not be lightened by a smaller family, owing to increased standards of welfare and education, the care of a dependent aged population will gradually become more urgent; this group will expand relatively rapidly, and will become an increasingly heavy burden upon the community. Thus the problem of finding a place for middle-aged workers will become urgent, for if a way is not found to maintain the productive capacity of these people the ratio of productive units to consuming units will decline and may well result in a lowering of the standard of living.

In *Population Trends and Future Problems of Child Welfare* Katherine F. Lenroot and Robert J. Myers contend that, although the United States has not been concerned about maintaining or increasing the birth-rate, it cannot afford to be indifferent to the quality of its future population. The White House Conference on Children in a Democracy, recommended that the Federal Government assume financial aid and planning responsibility for inter-state migrants and that State grants in aid for the support and expansion of certain services to children be extended, but reported grave deficiencies in individual medical care and a lack of hospitals and clinics despite progress made during the last decade. Only a small proportion of the rural counties of the United States have child welfare workers.

Owing to the migration of the surplus rural populations to the towns, the farm communities bear the cost of rearing a considerable proportion of those who later constitute the population of the towns; child welfare in rural districts is, therefore, the concern of town dwellers, but the need of preparation for city life among country-bred children is largely unmet.

Population Trends and Problems of Education.—By Newton Edwards.—There are now 1½ million fewer children of elementary school age than there were ten years ago, and it is clear that the period of phenomenal expansion in high school attendance (which has been approximately doubled each decade for the past half-century) is drawing to a close. This should result in an all-round improvement in educational standards, for in the past stress has of necessity been laid on quantitative considerations. The point made in the previous paper, that the burden of education is being carried by the poorer localities, is here amplified, and the writer points out that whereas education should be a force to equalize the conditions of men it is in danger of becoming a creator of class, race and sectional distinctions. "The problem of unequal educational opportunity is essentially a rural problem. Education along with other agencies faces the immense task of reintegrating rural life with our national culture and education cannot perform its part of the task without additional Federal and State aid."

Miriam Bailey contributes a paper on *Mortality in the Children of Tuberculous Households*, Regine K. Stix writes on *Factors Underlying Individual and Group Differences in Uncontrolled Fertility*, and there is a detailed analysis of *Medical Evaluation of Nutritional Status*, by H. D. Kruse, C. E. Palmer, W. Schmidt and Dorothy G. Wiehl.

K. H.

Year Book of Education, 1940

Birth, Marriage and Death among Teachers.—By Frank Sandon.—The death-rate among teachers is low and their health is good, but they do not marry as freely or as young as do others in comparable occupational classes, such as the Civil Service. Their birth-rate is well below reproduction level—that for married male teachers for 1931 was only 62 per cent of that of the country as a whole—and although the children appear to inherit the good health of their parents, there is a high infant death-rate, particularly among the illegitimate children of women teachers; the illegitimate birth-rate, however, is very low.

The policy of not employing married teachers, added to the various demands made upon them, is leading to the gradual disappearance of a section of the population with superior intelligence, physique and character, and there is no reason to believe that there will be an indefinite flow of suitable recruits to the teaching profession from other sources in the community. These facts demand serious attention from the profession and administrators as a whole.

K. H.